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REMARKS

Claims 1-7, 10, 22-31 and 34-36 are pending in the case. Upon entry of this Amendment, Claim 1, 34 and 35 will be cancelled. Thus Claims 2-7, 10, 22-31 and 35 will remain pending in the case.

Applicants acknowledge with appreciation that in this Office Action, Claim 35 is indicated as allowable as indicated on page 12 of the Office Action, that the Declaration of Dr. Adamczewski is sufficient to overcome the prior enablement rejection and that the CPA has been properly established.

With regard to the rejection of Claim 10 under 35 U.S.C. Section 112, second paragraph appearing on pages 11 and 12 of the Office Action, Applicants have amended Claim 10 to provide proper antecedent basis for the terms "culture medium" and "cell", mentioned on page 12 of the Office Action.

With regard to the objection (Applicants have assumed to Claims 1, 10 and 35 respectively) appearing on pages 2 -3 of the Office Action, Applicants have taken the Examiner's suggestion to amend Claim 35 subpart (a) to claim the sequences in the alternative rather than the conjunctive (Claim 1 having been cancelled by this amendment). Applicants have also taken the Examiner's suggestion to amend Claim 10 to incorporate the language set forth on page 3 of the Office Action to refer to "culturing cells comprising a vector" as opposed to "culturing a vector". Applicants appreciate the Examiner's suggestion to clarify the claim.

With regard to the claim rejections under 35 U.S.C. Section 112, first paragraph described on pages 3-6 of the Office Action directed to Claims 1-7, 10, 22-31 and 34, Applicants note that the rejection seems to be primarily directed to subpart (b) of Claim 1, with the other claims being implicated by their dependency upon Claim 1. Applicants note that page 6 of the specification notes that this rejection may be overcome by deleting from the claims subpart (b).

Applicants respectfully traverse the rejection of Claim 1, subpart (b) under 35 U.S.C. Section 112, first paragraph, and respectfully assert that the subject matter of subpart (b), namely "a sequence hybridizing with any of the sequences defined under (a) in 2 x SSC at 60°C" is fully supported in the specification and enables one skilled in the art to practice the invention. However, to remove issues

from the case and advance its
replacement Claim 35, then
preserve the right to pursue
divisional applications.

in its
respectfully
subpart (b) in any

With regard to the claim rejections under 35 U.S.C. Section 112, first paragraph described on pages 9-11 of the Office Action in its section entitled "Enablement" directed to Claims 1-7, 10, and 34, Applicants note that the rejection again seems to be primarily directed to subpart (b) of Claim 1, with the other claims being implicated by their dependency upon Claim 1. Again, Applicants note that page 11 of the specification states that the rejection may be overcome by deleting subpart (b).

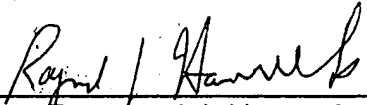
Again, Applicants respectfully traverse the rejection of Claim 1, subpart (b) under 35 U.S.C. Section 112, first paragraph, and respectfully assert that the subject matter of subpart (b), namely "a sequence hybridizing with any of the sequences defined under (a) in 2 x SSC at 60°C" is fully supported in the specification and enables one skilled in the art to practice the invention. However, to remove issues from the case and advance its prosecution, Claim 1 has been cancelled, and in its replacement Claim 35, there is no similar subpart (b). Applicants respectfully preserve the right to pursue the subject matter of Claim 1 subpart (b) in any divisional applications.

Applicants believe the claims are now in condition for allowance. Entry of these amendments and review and reconsideration and allowance of the claims is respectfully requested.

Attached is a marked-up version of the changes made to the claims by the current amendment. Applicants note that many of the claim changes are cosmetic and are not in derogation of the prior art and that Applicants cannot reasonably

claim every variation of the subject matter of the present invention and do not make a general disclaimer by these amendments to the claims. Further, the cosmetic amendments are not in derogation of any prior art, and Applicant respectfully asserts that it is entitled to the claims as amended and any equivalents thereof.

Respectfully submitted,

By 
Raymond J. Harmuth
Attorney for Applicants
Reg. No. 33,896

Bayer CropScience LP
100 Bayer Road
Pittsburgh, Pennsylvania 15205-9741
(412) 777-8366
FACSIMILE PHONE NUMBER:
(412) 777-8363
s/rmc/rjh/0073

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please cancel Claims 1, 34 and 36, and amend the claims as follows.

Claim 35 replaces Claim 1 as the new independent claim, and is presented first for convenience.

35. (Once Amended) An isolated nucleic acid comprising a sequence selected from

- (a) a sequence according to nucleotide No. 372 to nucleotide No. 2681 of SEQ ID NO: 1, nucleotide No. 335 to nucleotide No. 1822 of SEQ ID NO: 3 ~~and/or~~ nucleotide No. 95 to nucleotide No. 1597 of SEQ ID NO: 5,
- (b) a sequence complementary to the sequences defined under (a), and
- (c) a sequence which, due to degeneracy of the genetic code, encodes the same amino acid sequences as those encoded by the sequences defined under (a),

wherein said nucleic acid encodes a complete or partial acetylcholine receptor subunit having the ability to form homooligomeric acetylcholine receptors when expressed in a host cells.

2. (Twice Amended) A vector which comprises at least one nucleic acid of Claim ~~1~~35.

3. (Twice Amended) The vector of Claim 2, ~~characterized in that~~wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in a prokaryotic cell or a eukaryotic cells.

4. (Twice Amended) A host cell which contains a nucleic acid of Claim ~~1~~35.

5. (Twice Amended) ~~A~~The host cell of Claim 4, ~~characterized in that~~
~~it~~wherein said host cell is a prokaryotic cell or a eukaryotic cell.

6. (Twice Amended) ~~A~~The host cell of Claim 5, ~~characterized in that~~wherein
the prokaryotic cell is E.coli.

7. (Twice Amended) ~~A~~The host cell of Claim 5, ~~characterized in that~~wherein
the eukaryotic cell is a mammalian cell or an insect cell.

10. (Thrice Amended) A process for preparing a polypeptide encoded by a
nucleic acid of Claim 435 comprising

- (a) culturing a prokaryotic cell or a eukaryotic cell in a culture medium,
said prokaryotic cell or said eukaryotic cell comprising a vector
comprising at least one nucleic acid of Claim 435, wherein the nucleic
acid is functionally linked to regulatory sequences which ensure
expression of the nucleic acid in the prokaryotic cell or the eukaryotic
cells and wherein culture conditions allow expression of a polypeptide
or polypeptides encoded by the nucleic acid, and
- (b) isolating the encoded polypeptide or polypeptides from the prokaryotic
cell or the eukaryotic cell and/or optionally where the encoded
polypeptide or polypeptides are secreted in the culture medium,
isolating the polypeptide or polypeptides from the culture medium.

22. (Once Amended) The nucleic acid of Claim 435 which comprises a
sequence that hybridizes with a sequence defined under (a) in 0.5 x SSC at 60°C.

23. (Once Amended) The nucleic acid of Claim 435 which comprises ~~the~~a
sequence that hybridizes ~~s~~ with a sequence defined in (a) in 0.2 x SSC at 60°C.

24. (Once Amended) A host cell containing ~~the~~a vector ~~of~~according to
Claim 2.

25. (Once Amended) A host cell containing ~~the~~ a vector ~~of~~ according to
Claim 3.

26. (Once Amended) The host cell of Claim 24 ~~that~~ wherein said host cell is
a prokaryotic cell or a eukaryotic cell.

27. (Once Amended) The host cell of Claim 25 ~~that~~ wherein said host cell is
a prokaryotic cell or a eukaryotic cell.

28. (Once Amended) The host cell of Claim 26 ~~that~~ wherein said host cell is
an E. coli cell.

29. (Once Amended) The host cell of Claim 27 ~~that~~ wherein said host cell is
an E. coli cell.

30. (Once Amended) The host cell of Claim 26 ~~that~~ wherein said host cell is
a mammalian cell or an insect cell.

31. (Once Amended) The host cell of Claim 27 ~~that~~ wherein said host cell is
a mammalian cell or an insect cell.